



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005**

July 14, 2006

EA-06-040

Mr. Ivan Posey
Chairman Shoshone Business Council
Eastern Shoshone & Northern Arapaho Tribes
Joint Business Council
15 North Fork Road
P.O. Box 217
Fort Washakie, Wyoming 82514

Mr. Richard Brannan
Chairman Northern Arapaho Business Council
Eastern Shoshone & Northern Arapaho Tribes
Joint Business Council
15 North Fork Road
P.O. Box 217
Fort Washakie, Wyoming 82514

**SUBJECT: NRC INSPECTION REPORT 030-35134/05-01 AND NOTICE OF VIOLATION;
AND EXERCISE OF ENFORCEMENT DISCRETION**

Dear Messrs. Posey and Brannan:

This refers to the routine, unannounced inspections conducted on February 17 and March 21, 2005, and the announced inspection conducted on February 14-15, 2006, at your facility in Fort Washakie, Wyoming. The inspections were examinations of activities conducted under your license as they relate to radiation safety and compliance with the commission's rules and regulations and with the conditions of your license. Within these areas, the inspections consisted of selective examination of procedures and representative records, interviews with personnel, independent radiation measurements, and observations of licensed activities. The inspector identified that your staff had stored portable gauges containing radioactive material in close proximity to employee offices, and that these employees were unaware of the radiation to which they may have been exposed. The inspections focused on the concern that members of your staff, who were not radiation workers, may have received doses in excess of NRC's 0.1 rem (1 millisievert) annual limit for members of the public. Additionally, other significant violations of regulatory requirements were identified. These violations involved failures to implement your radiation safety program requirements. Preliminary inspection findings were discussed with Mr. Posey and members of your staff at the conclusion of the onsite portion of the inspection on February 15, 2006; and during a conference call with Messrs. Rudd, Althouse, and Weeks on March 10, 2006. In addition, a final exit briefing was conducted on May 25, 2006, with Messrs. Rudd and Thin Elk.

After our February and March 2005 inspections, the NRC issued a Confirmatory Action Letter (CAL) dated April 29, 2005, confirming your commitment to perform an evaluation of possible radiation exposures for calendar years 2002 through 2004 of your employees who are not radiation workers and, therefore, are considered members of the public under NRC regulations. The April 29, 2005, CAL also confirmed that you would provide us with the dose estimates by July 31, 2005. You requested, and were granted, an extension to provide the dose estimates by November 16, 2005. However, you did not submit those dose estimates until January 12, 2006, after several requests from our office. In January 2006, you submitted a report, stamped "Draft," prepared by your consultant, which evaluated the pertinent exposures. To date, the NRC has not received a final exposure evaluation from you. You also informed the NRC, by letters dated March 14 and March 16, 2006, that you have transferred your licensed devices to an authorized recipient and have requested termination of your NRC license. Therefore, in order to determine whether members of the public received doses in excess of NRC limits from your licensed operations, the NRC conducted an independent evaluation of the doses received by your employees.

During the February 2006 inspection, the inspector closely reviewed your method for demonstrating compliance with the dose limits for individual members of the public by evaluating your consultant's report, conducting interviews with personnel that worked near and around storage locations of your portable gauges, and making independent calculations. Based on the information developed during this inspection, the NRC has concluded that one of your employees (considered a member of the public under NRC regulations) received a calculated dose of 0.19 rem (1.9 millisieverts), which is in excess of the 0.1 rem (1 millisievert) annual limit for members of the public, in calendar years 2000 and 2001. Section 2.2.2 of the attached inspection report documents our evaluation. During the final exit briefing conducted on May 25, 2006, you indicated that you might dispute NRC's conclusion regarding the exposure.

Based on the results of the inspection, the NRC has identified eight violations of NRC requirements which are cited in the attached Notice of Violation (Notice) (Enclosure 1). The NRC considers violations A and B as the most significant violations. These violations involved failures to: (A) conduct operations so that the total effective dose to individual members of the public does not exceed 0.1 rem (1 millisievert) in a year as required by 10 CFR 20.1301(a)(1), and (B) make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public as required by 10 CFR 20.1301 and 20.1302(a).

Although a single individual has received a dose in excess of the NRC's annual limit for members of the public, in order to put this exposure in context we note that an exposure of 0.19 rem (1.9 millisieverts) does not exceed 10 percent of the 5 rem (0.05 Sieverts) annual limit for radiation workers. Nevertheless, violations A and B reflect a lack of adequate oversight of your radiation safety program that resulted in an individual member of the public being exposed in excess of NRC limits. Therefore, violations A and B have been categorized collectively as a single Severity Level III problem in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Enforcement Policy**. The violations are cited in the enclosed Notice and the circumstances surrounding them are described in detail in the subject inspection report (Enclosure 2).

In accordance with the Enforcement Policy, a civil penalty normally is considered for a Severity Level III problem. However, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Materials, Research and State Programs, the NRC is exercising enforcement discretion and is refraining from issuing a civil penalty. Discretion is being exercised pursuant to Section VII.B.6 of the Enforcement Policy because you have transferred all licensed material to an authorized recipient; you are no longer conducting licensed activities; and you have requested termination of your license. Were these not the circumstances, a civil penalty would have been considered.

Under 10 CFR 20.2205, when a licensee is required to report to NRC an exposure to a member of the public in excess of NRC limits, the licensee is also required to provide a copy of the report to the exposed individual. In this case, you have failed to provide a final evaluation of the doses received by your employees (which is part of the basis for Violation B). Therefore, given the NRC's conclusion that one of your employees received an exposure in excess of the limit, the NRC is obligated to inform the individual of the exposure. Because you stated at the exit briefing that you might contest the violation regarding the exposure, we will delay informing the individual for 30 days, which is the time frame allowed for you to contest the violation.

The six additional violations, C through H in the Notice, have been categorized individually at Severity Level IV and were not considered for escalated enforcement action. These violations involved failures to: (C) conduct annual audits of your radiation safety program during calendar years 2001 - 2005; (D) conduct leak-tests of sealed radioactive sources from May 2000 to March 2005; (E) conduct physical inventories of licensed material from May 2000 through March 2005; (F) maintain receipt records of licensed material between calendar years 2000 and 2005; (G) develop and implement emergency and operating procedures from May 2000 through March 2005, and (H) assure that authorized gauge users received recurrent Department of Transportation required hazmat training from January 2003 through February 2006.

The NRC has concluded that information regarding the reason for these violations, the actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved are already adequately addressed on the docket in the enclosed inspection report, and in your letters dated March 6, 14 and 16, 2006, requesting termination of the license. As discussed with you during the exit briefing, we believe we have sufficient information to make an enforcement decision without the need for a predecisional enforcement conference. As a result, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

The termination request is being processed by our Nuclear Materials Licensing staff, and we intend to terminate your license after 30 days (again to allow you time to contest any violation). In addition, you are advised that should you become involved in NRC-licensed activities in the future, you may be required to address the issues in the enclosed Notice to provide NRC with reasonable assurance that you will comply with NRC requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if any, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/Adams.html>. If you do choose to

provide a written response to this letter, to the extent possible it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

Sincerely,

/RA/

Bruce S. Mallett
Regional Administrator

Docket No.: 030-35134
License No.: 49-27636-01

Enclosures:

1. Notice of Violation
2. NRC Inspection Report 030-35134/05-01

cc w/Enclosures:

Wyoming Radiation Control Program Director

Mr. Kelly Arthur Rudd
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Baldwin & Crocker, P.C.
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Lander, Wyoming 82520-1229

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Cain - CLC	Spitzberg - DBS
R Munoz-RRM	Linda McLean - MLM1
Campbell - VHC	Michele Burgess - MLB5
Morell-GKM	Vasquez - GMV
S Merchant, OE	
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SUNSI Review Completed: RRM ADAMS: X Yes ☐ No Initials: RRM

X Publicly Available ☐ Non-Publicly Available ☐ Sensitive X Non-Sensitive

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D:DNMS	OE	OGC	DRA	RA
RMuñoz	M Johnson	B Jones	P Gwynn	B Mallett
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NOTICE OF VIOLATION

Eastern Shoshone and Northern Arapaho Tribes
Fort Washakie, Wyoming

Docket No. 030-35134
License No. 49-27636-01
EA-06-040

During an NRC inspection conducted on February 17 and March 21, 2005, and February 14-15, 2006, eight violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 20.1301(a)(1) requires, in part, that the licensee shall conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations does not exceed 0.1 rem (1 mSv) in a year.

Contrary to the above, during calendar years 2000 through 2001, the licensee failed to conduct operations so that the total effective dose equivalent to individual members of the public did not exceed 0.1 rem in a year. Specifically one member of the public, working in close proximity to the portable gauge storage area received a calculated dose in excess of 0.1 rem during calendar years 2000 and 2001.

- B. 10 CFR 20.1302(a) requires, in part, that each licensee make or cause to be made surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public.

Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.

Contrary to the above, from March 2000 through May 2006, the licensee failed to make or cause to be made surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public as required. Specifically, no survey (evaluation) had been conducted in the office spaces located directly above the portable gauge storage area to demonstrate compliance with the public dose limits.

Violations A and B constitute a Severity Level III problem (Supplement IV).

- C. 10 CFR 20.1101(c) requires that the licensee shall periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, the licensee failed to, at least annually, review the radiation protection program content and implementation during calendar years 2001 through 2005.

This is a Severity Level IV violation (Supplement IV).

- D. Condition 13.A of Byproduct Materials License 49-27636-01 requires, in part, that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by NRC or by an Agreement State. The certificate of registration for Troxler Model 3400 Series moisture and surface density gauges specifies the leak test interval to be six months.

ENCLOSURE 1

Contrary to the above, the licensee failed to leak test its sealed sources at the 6-month interval specified in the certificate of registration. Specifically, the sealed sources contained in six Troxler Model 3400 Series portable gauging devices were not tested for leakage from May 25, 2000, to March 21, 2005.

This is a Severity Level IV violation (Supplement VI).

- E. Condition 15 of Byproduct Materials License 49-27636-01 requires that the licensee conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license.

Contrary to the above, the licensee failed to conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Specifically, for the period May 25, 2000, through March 21, 2005, the licensee failed to conduct a physical inventory to account for all sealed sources and/or devices received and possessed under the license.

This is a Severity Level IV violation (Supplement VI).

- F. 10 CFR 30.51(a) requires, in part, that each person who receives byproduct material pursuant to a license issued pursuant to the regulations in 10 CFR Part 30 through 36, shall keep records showing the receipt, transfer, and disposal of the byproduct material.

Contrary to the above, the licensee failed to account for the receipt, transfer, and disposal of byproduct material, and provide documentation of the receipt and disposal of gauges containing licensed material. Specifically, the licensee failed to maintain receipt and transfer records for at least six portable gauges between calendar years 2000 and 2005.

This is a Severity Level IV violation (Supplement VI).

- G. Condition 22 of Byproduct Materials License 49-27636-01 requires the licensee to conduct its program in accordance with statements, representations, and procedures contained in documents, including any enclosures, listed in the license application dated June 28, 1999.

The license application dated June 28, 1999, requires that the licensee implement and maintain operating and emergency procedures contained in Appendix H of NUREG-1556, Vol. 1, dated May 1997.

Contrary to the above, the licensee failed to maintain and implement operating and emergency procedures. Specifically, from May 25, 2000, to March 21, 2005, the licensee routinely used and transported portable gauges without maintaining and implementing operating and emergency procedures.

This is a Severity Level IV violation (Supplement VI).

- H. 10 CFR 71.5(a) requires that each licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public

highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the Department of Transportation regulations in 49 CFR Parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport.

49 CFR 172.702 requires that each hazmat employer shall ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained, in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8.

49 CFR 172.704(a) specifies the elements of hazmat employee training, in part, as (1) general awareness/familiarization training; (2) function-specific training; and (3) safety training. 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee receive recurrent training at least once every three years.

Contrary to the above, the licensee failed to provide recurrent hazmat training to its hazmat employees at least once every three years. Specifically, the licensee did not provide recurrent training for its portable gauge users from January 2003 through February 2006, a period in excess of three years.

This is a Severity Level IV violation (Supplement V).

The NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence and the date when full compliance was achieved is already adequately addressed on the docket in the subject inspection report, and in letters dated March 6, 14, and 16, 2006, requesting the termination of the license. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA-06-040," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, NRC Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

In accordance with 10 CFR 19.11, you are required to post this Notice within two working days.

Dated this 14th day of July 2006

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 030-35134
License No.: 49-27636-01
Report No.: 030-35134/2005-001
EA No.: 06-040
Licensee: Eastern Shoshone & Northern Arapaho Tribes
Location(s): Fort Washakie, Wyoming
Dates: February 17, 2005, through March 10, 2006
Inspectors: R. Rick Muñoz, Health Physicist
Nuclear Materials Inspection Branch
Accompanied By: Leonard D. Wert, Director
Division of Nuclear Materials Safety
Approved By: Vivian Campbell, Chief
Nuclear Materials Inspection Branch
Attachment: Supplemental Inspection Information

ENCLOSURE 2

EXECUTIVE SUMMARY

Eastern Shoshone and Northern Arapaho Tribes NRC Inspection Report 030-35134/05-01

This refers to the routine unannounced inspection initiated on February 17, 2005, at the licensee's Fort Washakie, Wyoming, facility. In addition, followup inspections were conducted by NRC on March 21, 2005, and February 14-15, 2006. The scope of these inspections included interviews with Eastern Shoshone and Northern Arapaho Tribes' (the licensee) personnel, independent radiation surveys, and reviews of selected records maintained at the facility.

Program Overview

The licensee is authorized to use portable gauging devices at their facilities located in Fort Washakie, Wyoming, and at temporary job sites in areas of NRC jurisdiction. At the time the inspection was completed on February 15, 2006, the licensee employed three trained gauge users and possessed four portable gauging devices (Section 1).

Inspection Observations and Findings

- In March 2005 the individual identified as the Radiation Safety Officer (RSO) on the license dated October 12, 1999, was not performing the duties of RSO. In February 2006, the newly appointed RSO, identified on the license dated August 16, 2005, relinquished his RSO duties to another individual who had not met the training requirements of the license. (Section 2.2.1)
- The licensee failed to conduct operations so that the total effective dose equivalent to individual members of the public did not exceed 0.1 rem (1 millisievert) in a year as required by 10 CFR 20.1301(a)(1). (Section 2.2.2)
- The licensee failed to make or cause to be made surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public as required by 10 CFR 20.1302. (Section 2.2.2)
- The licensee failed to review periodically (at least annually) the radiation protection program content and implementation as required by 10 CFR 20.1101(c). (Section 2.2.3)
- The licensee failed to leak test sealed sources at the six-month interval specified in the certificate of registration as required by the license. (Section 2.2.3)
- The licensee failed to conduct a physical inventory every six months to account for all sources and/or devices received and possessed under the license as required by the license. (Section 2.2.3)
- The licensee failed to keep records for receipt, transfer, and disposal of all licensed material as required by 10 CFR 30.51. (Section 2.2.3)
- The licensee failed to maintain and implement emergency and operating procedures as required by the license. (Section 2.2.3)
- The licensee failed to provide recurrent (three-year) training to its hazmat employees as required by 10 CFR 71.5(a) and 49 CFR 172.704(c). (Section 2.2.3)

Corrective Actions

In February 2005, the Director of the Wind River Environmental Quality Commission (Wind River EQC) relocated all personnel formerly located adjacent to the portable gauge storage area where radiation dose rate levels were such that there was a potential for exceeding the annual regulatory dose limit for members of the public. (Section 2.2.2)

A report dated November 16, 2005, and prepared by the licensee's consultant, reviewed radiation exposures of Wind River EQC employees (members of the public) that were assigned to the office located above the portable gauge storage area in Fort Washakie, Wyoming. The report, which was stamped "Draft," was provided to the NRC on January 12, 2006. The report concluded that, contingent on occupancy factors at three respective work stations, three individual members of the public received exposures that exceeded the regulatory limit. After further review and evaluation, involving interviews with affected individuals to determine realistic occupancy factors, the NRC concluded that only one of the individuals identified in the licensee's draft report received a dose in excess of NRC's 0.1 rem (1 milliseivert) annual limit for individual members of the public. For that individual, NRC calculated a dose of 0.19 rem (1.9 millisieverts) in calendar years 2000 and 2001. (Section 2.2.2)

By letter dated March 6, 2006, and subsequent facsimiles dated March 14 and 16, 2006, the licensee stated that it had divested itself of all licensed materials and requested termination of their license. NRC staff has confirmed that all licensed materials have been transferred to an authorized recipient.

Report Details

1 Program Overview (87124)

Eastern Shoshone and Northern Arapaho Tribes (the licensee) is authorized under NRC Byproduct Materials License 49-27636-01 (the license) to possess and use portable gauging devices for measuring physical properties of materials. Licensed material (cesium-137 and americium-241 in the form of sealed sources) is authorized to be used at the licensee's facilities located at 10 Washakie Street, Fort Washakie, Wyoming, and at temporary job sites in areas of NRC jurisdiction.

An initial inspection of licensed activities was performed by the NRC on May 25, 2000, no violations were identified during that inspection. At that time, the licensee possessed four portable gauges which had not been used. As of the March 21, 2005, inspection, the licensee possessed 10 portable gauges and employed three trained portable gauge users. As of the February 15, 2006, inspection, the licensee had reduced their portable gauge inventory to four devices.

2 Inspection Findings (87124, 83822, 86740)

2.1 Inspection Scope

The inspection consisted of interviews with licensee personnel, a review of records pertaining to the radiation safety program, and independent radiation measurements at the licensee's radioactive material storage facility.

2.2 Observations and Findings

2.2.1 RSO Responsibility and Management Oversight

Licensed activities are managed by the Shoshone and Arapaho Joint Business Council which is comprised of the Shoshone Business Council and the Arapaho Business Council. The Wind River Environmental Quality Commission (Wind River EQC) is responsible for the environmental and engineering projects for the Joint Business Council. The Tribal Water Engineers Office is responsible for the engineering projects. The Wind River Materials Lab staff within the Tribal Water Engineers Office implement licensed activities.

Based on interviews of licensee personnel, review of the NRC license, and review of records maintained by the licensee, it was determined that the radiation safety officer (RSO) was appointed by and accountable to the Joint Business Council. The Deputy Tribal Water Engineer was designated as the RSO in License Condition 12.A. on the license dated October 12, 1999.

On February 17, 2005, the NRC attempted to conduct an unannounced routine inspection. The inspection was started but could not be completed because neither the RSO nor any authorized gauge user could be contacted. On March 21, 2005, the inspector revisited the facility to complete the inspection. Again the RSO listed on the license was not available. A member of the Joint Business Council made numerous

attempts to contact the RSO, but was unable to do so. Based on interviews with licensee personnel and independent radiation measurements at the licensee's facilities, the inspector concluded that the RSO was not fulfilling his duties and responsibilities to ensure that licensed materials are used and stored in a safe manner.

On April 29, 2005, a confirmatory action letter (CAL) was issued to the licensee (ML051190747) documenting, in part, the licensee's agreement to submit a license amendment to request another qualified individual be identified as RSO. In a letter dated May 19, 2005, and received by NRC on June 1, 2005, the Joint Business Council requested that the license be amended to identify the Transportation Planner/Manager of the Wind River Materials Lab as the new RSO. The license was amended to reflect this change on August 15, 2005.

During the February 14-15, 2006, announced site visit, the inspection was finally completed through the effort and assistance from attorneys representing both tribal councils. However, during this site visit, the newly appointed RSO informed the NRC inspector that he was not able to fulfill the RSO duties, and had relinquished the RSO duties and responsibilities to another individual who had not yet met the training requirements of License Condition 12.B.

Based on the significance and duration of the violations identified in the following sections of this document, the NRC determined that neither RSO had effectively implemented the radiation safety program for the licensee. In addition, the Joint Business Council had not maintained adequate management oversight of the program.

2.2.2 Exposure to Members of the Public

License Condition 10.A of the license dated October 12, 1999, authorized storage of the gauges in Building 10 at the Tribal Water Engineers Office. During the February 17, 2005 inspection, the inspector determined that the Tribal Water Engineers Office had relocated to a different facility on the reservation in calendar year 2000. Other Wind River EQC employees not engaged in licensed activities were occupying the office directly above the gauge storage area. The NRC inspector determined that these individuals are not radiation workers, and therefore, under NRC regulations are considered members of the public.

During the February 2005 inspection, using a Ludlum Model 2401-P survey instrument (serial number 215052, calibration date July 13, 2004), the inspector performed independent area surveys of the office. The inspector noted that there were three work stations located within this office above the gauge storage area. The storage area contained ten portable gauges at that time. The measured radiation levels in the office ranged from 0.003 - 0.005 mGy/hr (0.3 - 0.5 mR/hr). Based on the 0.003 mGy/hr (0.3 mR/hr) measurement, assuming that at least half of the gauges were in use in the field while the offices were occupied, and using a 50 percent occupancy factor, the inspector determined that there was a potential for individual members of the public to receive a dose in excess of the 0.1 rem (1 millisievert) regulatory limit. On February 17, 2005, the Director of Wind River EQC notified three workers of the potential radiation hazard in the work space due to the proximity of the portable gauge storage area and asked them to relocate their offices to another part of the building.

As a result of this concern, the NRC's CAL dated April 29, 2005, also documented the licensee's agreement to provide an evaluation of the radiation exposures received by its employees by July 31, 2005. Subsequently, the licensee asked for, and was granted, an extension to November 16, 2005. However, it was not until January 12, 2006, after numerous telephone calls, that the licensee provided the NRC with a copy of the consultant's written report dated November 16, 2005, and stamped "draft." The licensee's January 12 letter transmitting the report stated that a formal response to the CAL would be forthcoming, but as of the date of this inspection report, the licensee has not submitted a final evaluation of radiation exposures to its employees.

The licensee's January 12, letter states that the licensee's preliminary review of the report reveals that NRC limits may have been exceeded for three out of seven individuals who were exposed to radiation. The letter also states that it provided a copy of the consultant's report to each of the seven employees who were subject to radiation exposures.

During the February 2006 inspection, the NRC reviewed the consultant's report and interviewed approximately 11 Wind River EQC staff including the three employees who may have received doses in excess of NRC limits. The consultant used a Monte Carlo technique to account for uncertainties regarding the number and location of the gauges, the location of personnel in the office, and the occupancy times for the individuals. The inspector focused the interviews on the amount of time each individual occupied the office and determined a realistic occupancy factor for each affected individual. Based on these interviews and using the doses identified in the consultant's draft report, the NRC performed independent calculations and determined that only one of the individuals worked in the affected area long enough to have received an exposure in excess of the annual limit for members of the public. The other two individuals spent most of their days not in the office, but out "in the field." Although these individuals worked in the affected office area on occasion, their occupancy times were such that their exposures did not exceed the annual limit.

The NRC determined that a single individual worked predominantly in the office above the gauge storage area. Three desk areas were located in this office which the consultant designated as Locations A, B, and C. The desk directly above the gauges is designated as Location B, while the desk areas on either side of Location B are designated as Locations A and C. Based on interviews, the NRC determined that, in the years 2000 and 2001, the individual spent about 10 percent of his time working at the desk directly above the gauge storage area (Location B in the consultant's report), and 80 percent of his time working at the two other desk areas in the office (Locations A and C). The individual also stated that he spent about 10 percent of his time out of the office (in the field). The consultant determined that the maximum doses at the 95th percentile of the dose distributions were 200 millirem (0.2 rem or 2 millisieverts) per year at Locations A and C, and 300 millirem (0.3 rem or 3 millisieverts) per year at Location B. Based on the occupancy factors above and using the doses identified in the consultant's report, the NRC determined that this single individual received a radiation exposure that was calculated to be 0.19 rem (1.9 millisieverts) in calendar years 2000 and 2001. To put this dose in context, it is less than 10 percent of the NRC's 5 rem (0.05 sievert) annual limit for radiation workers.

10 CFR 20.1301(a)(1) requires, in part, that the licensee conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations does not exceed 0.1 rem (1 millisievert) in a year. Based on dose estimates provided by the licensee's consultant's report and the NRC's independent calculations, the NRC concluded that the storage of portable gauging devices at the licensee's Fort Washakie, Wyoming, facility resulted in one individual member of the public (a licensee employee) receiving a total effective dose equivalent in excess of the regulatory limit specified in 10 CFR 20.1301(a)(1) in calendar years 2000 and 2001. The individual received an exposure calculated to be 0.19 rem (1.9 millisieverts) in each of those calendar years. The licensee's failure to conduct operations so that the total effective dose equivalent to individual members of the public from licensed operations does not exceed 0.1 rem (1 millisievert) in a year, as required, was identified as a violation of 10 CFR 20.1301(a)(1). (030-35134/0501-01)

10 CFR 20.1302(a) requires, in part, that the licensee shall make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10 CFR 20.1301. 10 CFR 20.1003 defines a survey as "an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of levels of radiation, or concentrations or quantities of radioactive material present."

Based on record reviews, the inspector determined that the licensee had documented a dose rate of 0.002 mGy/hr (0.2 mR/hr) at work station B in a letter dated January 11, 2000, from the RSO to the Joint Business Council. Additional shielding was provided to reduce the dose rate in the office space to 0.0003 mGy/hr (0.03 mR/hr) which was documented in a memorandum dated February 16, 2000, from the RSO to the Tribal Water Engineers Office and Wind River EQC staff. However, six more portable gauges were acquired in calendar year 2000. During the February 2006 site visit, records were not made available to document when the gauges were stored, or that radiation measurements had been performed by the licensee when the portable gauge inventory was increased to ten devices. The licensee did not conduct additional radiation measurements of the office area until November 2005. Between March 2000 and November 2005, the licensee did not perform radiation measurements to evaluate the potential doses to members of the public (its employees) working in office spaces above the gauge storage area. As of the date of this inspection report, the licensee still has not completed an evaluation of the doses received by its employees for calendar years 2000-2005 due to the storage of its gauges. The licensee's failure to make or cause to be made, as appropriate, surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in accordance with 10 CFR 20.1301 was identified as a violation of 10 CFR 20.1302(a). (030-35134/0501-02)

2.2.3 Radiation Protection Program

10 CFR 20.1101(a) requires, in part, that each licensee shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient enough to ensure compliance with the provisions of 10 CFR Part 20. Though the licensee had developed and documented a radiation protection program as early as December 1999, it had not been effectively implemented and was not commensurate with the scope and extent of licensed activities or sufficient to ensure compliance with the provisions of 10 CFR Part 20. The licensee's failure to fully implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with 10 CFR Part 20 directly resulted in the failure of the licensee to comply with 10 CFR 20.1301(a)(1) and 10 CFR 20.1302(a) as discussed in Section 2.2.2 of this document. Additionally, failures in the licensee's radiation protection program resulted in another six violations which are described in this section.

10 CFR 20.1101(c) requires, in part, that the licensee periodically (at least annually) review the radiation protection program content and implementation. During NRC's February 2006 inspection at the licensee's facility, through a review of relevant records and personnel interviews, the inspector determined that the licensee had not reviewed its radiation protection program content and implementation during calendar years 2002 through 2005. Records indicated that an internal audit of the radiation safety program for licensed activities was performed in January 2002 for the licensed activities conducted during calendar year 2001. However, the audit was not complete and the licensee did not ensure that corrective actions were adequate for items identified. The licensee's failure to review periodically (at least annually) the radiation protection program content and implementation during calendar years 2001 through 2005 was identified as a violation of 10 CFR 20.1101(c). (030-35134/0501-03)

Condition 13.A. of Byproduct Materials License 49-27636-01 requires that sealed sources be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the NRC pursuant to 10 CFR 32.210 or by an Agreement State. The certificate of registration for the Troxler Model 3400 Series moisture and surface density gauge specifies that leak tests be conducted at six-month intervals. The licensee did not provide documentation to demonstrate compliance with the leak test requirement. When questioned, the staff responsible for performing the leak tests could not confirm that leak tests had been performed. Specifically, the sealed sources contained in six Troxler Model 3400 Series portable gauging devices were not tested for leakage from May 25, 2000 to March 21, 2005, an interval in excess of six months. This was identified as a violation of License Condition 13. A. (030-35134/0501-04)

Condition 15 of Byproduct Materials License 49-27636-01 requires that the licensee conduct a physical inventory every six months, or at other intervals approved by NRC, to account for all sources and/or devices received and possessed under the license. The licensee did not provide documentation to demonstrate compliance with the source inventory requirement. When questioned, the staff responsible for performing inventories could not confirm that they had been conducted. The licensee failed to conduct inventories at six month intervals as required. Specifically, sealed sources

contained in ten portable gauging devices were not inventoried from May 25, 2000 to March 21, 2005. This was identified as a violation of License Condition 15. (030-35134/0501-05)

10 CFR 30.51(a) requires, in part, that each person who receives byproduct material as authorized by an NRC license, shall keep records showing the receipt, transfer, and disposal of the byproduct material. The NRC inspector determined during the site visit on February 15, 2006, that the licensee possessed four Troxler Model 3440 portable gauges. However, certain licensee records indicated that they had possessed and used 10 portable gauges between calendar years 2000 and 2005. The NRC inspector contacted a vendor and verified receipt and transfer for the six gauges no longer possessed by the licensee. The inspector subsequently determined that the licensee's records failed to contain documentation on the acquisition and disposal of all gauges possessed between 2000 and 2005. Failure to maintain adequate receipt, transfer and disposal records was identified as a violation of 10 CFR 30.51(a). (030-35134/0501-06)

Condition 22 of the license requires the licensee to conduct its program in accordance with the statements and representations in the license application dated June 28, 1999. In its application, the licensee committed to maintain and implement the emergency and operating procedures outlined in NUREG 1556, Volume 1, Appendix H. A review of records indicated that the licensee did not have operating and emergency procedures, as required. When questioned, individuals responsible for transporting portable gauges confirmed that they did not have operating and emergency procedures. Specifically, the licensee possessed, used and transported licensed material from May 25, 2000 to March 21, 2005, but failed to implement and maintain operating and emergency procedures, as required. This was identified as a violation of License Condition 22. (030-35134/0501-07)

10 CFR 71.5(a) requires that each licensee who transports licensed material outside of the site of usage as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable DOT requirements in 49 CFR Parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport. 49 CFR 172.702 requires that each hazmat employer shall ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8. 49 CFR 172.704(a) requires, in part, that hazmat employee training must include (1) general awareness/familiarization training, (2) function-specific training, (3) safety training, and (4) security awareness training. 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee receive recurrent training at least once every 3 years.

A review of records indicated that the licensee had not provided recurrent hazmat training as required. When questioned, individuals responsible for transporting portable gauges confirmed that they had not received recurrent hazmat training. The inspector determined that the licensee failed to provide hazmat training, once every three years, to portable gauge users to maintain compliance with 10 CFR 172.704(c). Specifically, although authorized portable gauge users had received initial training, the licensee did

not provide required recurrent training from January 2003 to February 2006. This was identified as a violation of 10 CFR 71.5(a). (030-35134/0501-08)

3 Exit Meeting Summary

A preliminary site exit briefing was conducted on February 17, 2005, with the Joint Business Council and February 15, 2006, with the Eastern Shoshone Business Council. A telephonic exit meeting was conducted with Messrs. Scott Althouse, Kassel Weeks, and Kelly A. Rudd on March 10, 2006. In addition, a final exit briefing was conducted on May 25, 2006, with Messrs. Rudd and Thin Elk. Licensee representatives acknowledged the inspector's findings. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Ivan Posey, Chairman, E. Shoshone Tribe
Gary Collins, Previous Radiation Safety Officer
John Smith, Radiation Safety Officer
Howard F. Brown, Radiation Technician
Bill Russell, Tribal Water Engineer
Don Aragon, Executive Director, WREQC
Kassel Weeks, Council Member, E. Shoshone Tribe
Baptiste Weed, Tribal Water Engineer
Kelly A. Rudd, Attorney, N. Arapaho Tribe
Scott Althouse, Attorney, E. Shoshone Tribe

INSPECTION PROCEDURES USED

87124	Fixed and Portable Gauge Programs
83822	Radiation Protection
86740	Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

030-35134/0501-01	VIO	A violation involving the licensee's failure to conduct operations to prevent a member of the public from receiving greater than 0.1 rem (1 millisievert) in a year.
030-35134/0501-02	VIO	A violation involving the licensee's failure to conduct surveys to demonstrate compliance with dose limits to members of the public.
030-35134/0501-03	VIO	A violation involving the licensee's failure to review the radiation protection program annually.
030-35134/0501-04	VIO	A violation involving the licensee's failure to conduct required leak testing at six month intervals.
030-35134/0501-05	VIO	A violation involving the licensee's failure to conduct inventories at six month intervals.
030-35134/0501-06	VIO	A violation involving the licensee's failure to maintain receipt, transfer and disposal records.
030-35134/0501-07	VIO	A violation involving the licensee's failure to implement and maintain emergency and operating procedures.

ATTACHMENT

030-35134/0501-08

VIO

A violation involving the licensee's failure to provide required recurrent hazmat training.

Closed

None

Discussed

Confirmatory Action Letter dated April 29, 2005.

LIST OF ACRONYMS USED

ADAMS	NRC's electronic document system
CAL	Confirmatory Action Letter
CFR	Code of Federal Regulations
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer
VIO	Violation
DOT	Department of Transportation